ELECTRODELESS HIGH-INTENSITY LIGHT SOURCE

The Naval Research Laboratory has developed an electrodeless high-intensity light source based on inductive coupling of radio frequency electromagnetic energy to form a discharge plasma. The visible emission is formed by a molybdenum-oxide chemistry. This technology represents a novel combination of existing electrodeless mercury fluorescent lamps, high pressure metal-halide lamps, and recycling tungsten lamps. Advantages include:

- Direct white light without phosphor
- Broadband emission providing high quality color rendition
- Non-hazardous, mercury-free composition
- Long lifetime due to the electrodeless power coupling

Applications for this technology include:

- High-bay area lighting, such as hangars
- Commercial plant lighting
- High definition projection lighting
- Stadium lighting

Licenses are available to companies with commercial interest. U.S Patent #6,157,133.

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